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ABSTRACT

Appalachian State University (ASU) is a participating institution in the North Carolina Consortium for Distance Education in Communication Sciences and Disorders (CSD). This Consortium initiated a successful distance education masters program in 1997. The distance education program at ASU is actually a hybrid program, providing the opportunity for comparison of performances in on-campus versus distance courses by individual students. In addition, comparisons of distance students and students enrolled in the traditional on-campus program are possible in summer courses in which both types of students enroll. Results of a distance student opinion survey are examined, followed by discussion of comparative performance in summer courses on campus, distance course performance, and success of the program. Eight indicators of success are presented, including low attrition rate, indicators of student satisfaction, and data showing equal to superior performances of distance students in competition with traditional on-campus students. (AEF)

Verifying Success in Distance Education

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Abstract: Appalachian State University (ASU) is a participating institution in the North Carolina Consortium for Distance Education in Communication Sciences and Disorders (CSD). This Consortium initiated a successful distance education masters degree program in 1997. Eight indicators of success are presented, including low attrition rate, indicators of student satisfaction, and data showing equal to superior performances of distance students in competition with traditional on-campus students.

Introduction

Appalachian State University (ASU) is a participating institution in the North Carolina Consortium for Distance Education in Communication Sciences and Disorders (CSD). This Consortium initiated a successful distance education masters degree program in 1997. This paper will present multiple evidences of that success. Other distance education programs may wish to conduct program evaluations with many of these measures.

Structure of the Consortium

The North Carolina Consortium for Distance Education in CSD offers a masters degree to public school speech-language pathologists (SLP). This mission was a response to legal action by the North Carolina Board of Examiners to require enforcement of a North Carolina Department of Public Instruction policy that all SLPs employed in the state's public school systems hold a masters degree in communication sciences and disorders, in accordance with guidelines of the American Speech Language and Hearing Association (ASHA). In 1996, the North Carolina Supreme Court upheld a North Carolina Court of Appeals ruling that public school SLPs who began that employment at the bachelors level after 1982 must obtain a masters by the year 2000, and that bachelors level SLPs who began employment in 1982 or earlier must also earn a masters degree in order to be eligible to continue working as public school SLPs after July 1, 2005. The imposition of these deadlines added urgency to the Consortium mission.

The five universities of the University of North Carolina System that participate in the Consortium are Appalachian State University, North Carolina Central University, University of North Carolina at Chapel Hill, University of North Carolina at Greensboro, and Western Carolina University. Each of these universities offers

a masters degree in CSD, and each developed a corresponding distance education masters program in support of the Consortium efforts. Each of the five participating universities requires its distance education students to meet all of that school's requirements for this degree, and students receive their degrees from the universities in which they enrolled. The major function of the Consortium is to organize and facilitate distance delivery of a common set of core courses, so that Consortium students are able to complete distance coursework during the school year while maintaining their employments in the North Carolina public school system. Other functions of the Consortium include publicity, recruiting, and providing a support system for the students enrolled in the distance education Consortium.

Students and Distance Education Courses

Only public school SLPs are eligible to participate in this program. Students have enrolled who work in counties scattered throughout the state of North Carolina, including counties on each of the four borders of the state. Distance courses may be taught by any of the five participating university programs, and are telecast to as many as three interactive sites throughout the state. Those students who are within one hour's drive of the originating university or an interactive site are expected to attend classes at that site. Students who are more than a one-hour drive from an interactive site are provided videotapes of lectures; these videotapes are sent to those students within a few days after each class. Variations in this course delivery plan have been used for some of the more recent course offerings. Some courses are now being made available by videostreaming, and one of the authors is using a more web-based approach supported by editing videotapes of classes from previous semesters to produce a CD-ROM that is provided to students upon enrollment.

At ASU, the CSD masters program is 60 credit hours; the requirement at other Consortium universities varies from 54 to 63 credit hours. At least 36 of those credit hours are from coursework, but as many as 24 credit hours are required in clinical practicum experiences. ASU requires four one-semester clinical experiences, and a full-time internship during the summer or semester prior to graduation. Students are required to attend two eight-week summer sessions to obtain their first two clinical practica. During each of those two summers, they can also enroll in as many as nine credit hours of academic coursework. Some students have already completed as many as six appropriate credit hours prior to admission, so the average student completes approximately half of her academic courses by distance.

Therefore, the distance education program at ASU is actually a hybrid program, providing the opportunity for comparison of performances in on-campus vs. distance courses by individual students. In addition, comparisons of distance students and students enrolled in the traditional on-campus program are possible in summer courses in which both types of students enroll. Since most distance courses are taught in conjunction with on-campus sections of those courses, an additional evaluative comparison is possible.

Results of a Distance Student Opinion Survey

In 2001 a survey was distributed to fifteen program graduates and twelve students nearing graduation. Twenty usable responses were received; this high response rate is likely the result, at least in part, of indicating that the names of respondents would be entered in a drawing for a \$25 gift certificate. Some survey questions were designed to obtain background information such as the number of courses that the student had completed by distance and the number completed on campus. Two survey questions designed to elicit comparative opinions regarding distance vs. on-campus courses asked students to list the courses they had enjoyed the most, and to list the courses in which they felt they had learned the most. Then they were asked to circle those courses that they had taken as distance courses. This noting of distance courses was checked against academic records to insure that the method of course delivery was reported correctly.

Table 1 shows the number of courses taken each way (distance vs. on-campus), the number of each listed as courses the students enjoyed the most, the number of each listed as courses in which they learned the most, and the results of paired t-test comparisons of these responses. Although not statistically significant, students listed almost twice as many distance courses as on-campus courses as the courses in which they had learned the most. This result leads the authors to believe that students did not consider distance courses to be less rigorous, nor did they consider their learning to be hampered by taking those courses at a distance. If they

had experienced significant frustrations with distance coursework, those frustrations were not reflected by their opinions of comparative learning. Other questions on the survey asked respondents to write about problems encountered in each group of courses; their written responses to these questions did not reveal major differences.

Mean Number of Courses	Distance Courses	On-campus Courses	Paired 't'	p-value
Completed	7.28	7.83		
Chosen as most enjoyable	1.61	0.67	2.29	.035
Selected for most learning	1.59	0.88	1.32	.20

Table 1: Results of an opinion survey of twenty distance education students regarding enjoyment of, and learning in, distance courses.

The statistically significantly greater number of distance courses chosen as courses enjoyed the most supports a conclusion that this distance program has been successful, at least in terms of providing distance coursework that does not alienate distance students. There are three confounding factors specific to this program that might contribute to the selection of distance courses as those courses which students enjoyed the most. One is that many of these students have families, and they get to live at home while completing distance courses. Secondly, students can look forward to continuing in their chosen careers, and they realize they would not be able to do that without giving up their paychecks were it not for this distance education program. Thirdly, these students apparently enjoy their work as public school SLPs, and the sense of accomplishment and contribution they receive when they are actively working at that job may contribute to their general satisfaction level.

Even though the three possible confounding factors presented above would seem to make it more likely that students would choose distance courses as courses they enjoyed the most, there is a major reason why that is still surprising. Working as a public school SLP is a demanding and exhausting occupation. Most of the early graduates of this distance program were facing year 2000 deadlines, so they enrolled in two distance courses each semester. The workload of two distance courses took away a huge percentage of their personal, family, and even rest and relaxation time. The Consortium leaders were continually amazed at how students were able to keep up with their distance courses while working full time and dealing with the usual problems of living (Cochenour, unpublished). The fact that they tended to receive lower grades in distance courses than in their on-campus summer courses, as shown in Table 2, probably reflects the demanding workloads they faced while taking distance courses. Still, they more often chose distance courses as courses they enjoyed the most, and they chose distance courses as courses in which they learned the most at least as often as they chose on-campus courses.

	Distance students GPA	On-campus students GPA
Summer 1998	3.817 (54)	3.836 (605)
Summer 1999	3.995 (105)	3.864 (503)
Summer 2000	3.833 (54)	3.858 (333)
Total for 3 summers	3.894 (213)	3.851 (1441)
Distance courses	3.471 (291)	

Table 2: Grade point averages (and credit hours) for thirteen ASU distance students in distance and on-campus courses and corresponding data for traditional students at ASU.

Comparative Performance in Summer Courses on Campus

Mean GPAs for summer courses taken by ASU distance students are shown in Table 2, along with the mean GPAs in the same courses for on-campus students. There was no significant difference in mean GPAs of

distance and on-campus students when enrolled in the same summer courses, but the mean for distance students was numerically higher than the mean for on-campus students. This is surprising because distance students had significantly lower admissions scores than on-campus students (Barber, 2002). However, both age differences and public school experience may have impacted this performance. Distance students would have had a number of years of practical experience during which they probably researched problems and issues that they faced with their case loads in the public schools. The years of experience of ASU distance students included in this data ranged from three to thirteen.

However, the age difference might work both ways. The older distance students regularly describe feeling paranoid about their ability to compete with students who have not had long breaks in their education, or they simply state they are afraid they can't do as well as younger students. Part of their fear may be that they did not have a high undergraduate GPA, so they lack faith in their academic abilities. In fact, a low undergraduate GPA may have been one of the factors that led to their decisions not to pursue the masters degree immediately upon receiving their B.S. However, the age difference may actually contribute to their performance if they are more mature, more determined, and less likely to invest a significant amount of time in social activities. Even their insecurity about competing with younger students may spur extra efforts.

So the Consortium distance education program is successful in terms of selecting students who have the ability to succeed in on-campus coursework. These students have also been successful in their clinical practicum and internship assignments; this is another indicator of program success.

Distance Course Performance

One of the authors taught a course which utilized three different content delivery modes. A group of on-campus students completed the course in a traditional classroom format. A second group of off-campus Consortium students completed the course by viewing videotaped lectures. A final group of on-campus students completed the course utilizing the distance format used by off-campus students. The mean scores of students in all three groups on a written comprehensive exam were not statistically significantly different, and, in fact, were almost identical (Table 3). Thus, distance students were as successful in this course as on-campus students completing the course in a traditional format or using distance technologies.

Group	Instruction Method	Number of students	Mean Score
On-campus students	classroom	35	90.93
On-campus students	distance	31	90.28
Distance students	distance	22	89.72

Table 3: Comparative performance on a written comprehensive exam of distance education students and on-campus students in a Dysphagia course.

Goal Achievement

The goal of the Consortium distance education program was to provide public school SLPs the opportunity to earn a masters degree without interrupting their service to the public schools of North Carolina. A total of sixty-three (63) students have entered the Consortium program. Only five of those students have left the program, and one of those five transferred to the on-campus program so that she could complete the masters sooner. Another decided to move back to her home state of New York, and she has entered an on-campus graduate program there. So our dropout rate has been below 10%, in contrast to the high drop out rates of many distance education programs. The authors consider the low attrition rate to be another indicator of success of this program.

A total of thirty-one (31) students have completed this program and earned their masters degree. Most of those graduates have continued to work in North Carolina public schools after graduation. There is a shortage

of qualified SLPs who would have been available to work in these public school positions if the Consortium students had not been able to continue to do so during their masters program and upon completion of that program. So very few of their school systems would have been able to find replacement personnel in a timely manner. It is not possible to calculate the number of children in need of speech-language therapy who would not have been served had it not been for the Consortium program, but the actual number has to be thousands of child-years. The success of this program can also be expressed in terms of high graduation rates, in terms of enabling the public schools of North Carolina to keep employees that they knew and wanted to keep, and in terms of the number of children in need of speech-language therapy who would have not been served if it were not for this program.

A Major Reason for the Success of This Program

Not all distance education efforts are successful, and few enjoy the level of success of this program. There is little question that the North Carolina Consortium for Distance Education in CSD has enjoyed this level of success because its students are mature and very highly motivated. The prospective students who sought admission to this program were those public school SLPs who wanted to continue in this career. The fact that they could not do so without successfully completing a masters degree program provided huge incentives that resulted in superhuman efforts. While Consortium planners and faculty made the program workable, it has been student efforts that actually made it so incredibly successful.

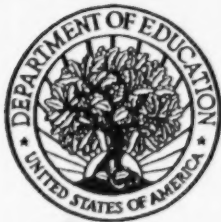
Summary of Indicators of Success of This Distance Program

1. Five North Carolina universities have cooperated in a Consortium effort to share the teaching, delivery, and operation of a distance education masters program. That Consortium effort is entering its sixth year of course offerings, and it is still viable.
2. Students who have taken approximately equal numbers of distance courses and on-campus courses more often identified distance courses as the courses they enjoyed the most. They also identified distance courses as the courses in which they learned the most at least as often as on-campus courses.
3. Performance in on-campus summer session courses by students enrolled in the Consortium distance education program was equal to performance in the same courses by students enrolled in the regular on-campus program, despite the fact that distance students had significantly lower admissions formula scores.
4. When given exams over the same course material, students receiving instruction via distance delivery performed as well as students in on-campus sections.
5. The Consortium distance education program has a very low attrition rate, and promises to have a very high graduation rate.
6. SLPs working in North Carolina public schools have been able to maintain employment while earning a masters degree. Further, most have been able to earn that degree prior to a deadline that could have resulted in the loss of their jobs.
7. Many North Carolina public school systems have been able to keep employees that they know and value, rather than having to try to recruit replacement personnel when there are not enough qualified SLPs to meet the demand.
8. The number of North Carolina public school children in need of speech-language therapy whose therapy would have been delayed if it were not for this program is undoubtedly in the thousands. This is the ultimate measure of the success of this distance education program.

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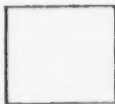


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